

REMARKS

Claims 1-8, 11-20 and 23 are pending. The Examiner's reconsideration of the objections and rejections is respectfully requested in view of the amendments and remarks.

The specification has been objected to wherein the Examiner indicated that there is no discussion with regard to FIGs 1-6. The specification has been amended to include references to the figures. Reconsideration of the objection is respectfully requested.

Claims 1-17 and 23 have been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. The Examiner indicated that the term "the scene" lacks antecedent basis. The term "the scene" has been deleted from Claims 1 and 23. Claims 4, 14 and 17 have been similarly amended. Reconsideration of the rejection is respectfully requested.

Claims 1-17 and 23 have been rejected under 35 USC 101 as being directed to non-statutory subject matter.

Claims 1 and 23 are the independent claims.

Claims 1 and 23 claim, *inter alia*, "determining a change in the background model incorporating the parallax; and tracking the object according to the change, wherein the change in the background model incorporating the parallax corresponds to the object."

Such tracking of an object is believed to be a practical application of the method. Consider that in *Diamond v. Diehr*, 450 U.S. 175, 209 USPQ 1 (1981), the Court noted, "when [a claimed invention] is performing a function which the patent laws were designed to protect (e.g.,

transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of Section 101." *Diehr*, 450 U.S. at 192. In Claims 1 and 23, images from each camera are used, e.g., reduced, to determine a change used in tracking, are is therefore believed to be a useful, tangible and concrete result of the application of the claimed limitations.

Claims 2-17 depend from Claim 1. The dependent claims are believed to be allowable for at least the reasons given for Claim 1. The Examiner's reconsideration of the objection is respectfully requested.

Claims 1-7, 9-11, 13 and 18-23 have been rejected under 35 U.S.C. 102(b) as being anticipated by Kumar et al. (USPN 6,963,664). The Examiner stated essentially Kumar teaches all the limitations of Claims 1-7, 9-11, 13 and 18-23.

Claims 1, 18 and 23 are the independent claims.

Claims 1 and 23 claim, *inter alia*, "obtaining a measure from the parallax that is invariant to motion of the object through the image, and tracking the object relative to the invariant measure." Claim 18 claims, *inter alia*, "a detection module for determining motion of an object in a scene defined by the views of the cameras according to the parallax, a predetermined background model and prior shape knowledge of the object; and a control strategy means for controlling at least one pan-tilt-zoom camera among the two or more camera to track the motion of the object based determined by the detection module."

Kumar teaches a method for image combination using a parallax (see Abstract) Kumar fails to teach "obtaining a measure from the parallax that is invariant to motion of the object through the image, and tracking the object relative to the invariant measure" as claimed in Claims 1 and 23 and "a control strategy means for controlling at least one pan-tilt-zoom camera

among the two or more cameras to track the motion of the object based determined by the detection module" as claimed in Claim 18.

Referring to Claims 1 and 23, Kumar's detailed description is limited to planar motion and parallax fields, and refers to scene change detection as a possible application (see FIG 6 and col. 17, lines 13-32). Kumar's scene change detection compares a selected image to a previous and a next image in a sequence to detect moving objects. Kumar's method fails to track an object relative to an invariant measure of a parallax, essentially as claimed in Claims 1 and 23. For example, by using the prior and next images, Kumar's comparison includes the object in the image – Kumar does not subtract out or otherwise remove the effect of the object on the parallax to obtain an invariant measure of the parallax. Therefore, Kumar fails to teach all the limitations of Claims 1 and 23.

Referring to Claim 18, Kumar teaches object detection (see FIG 6 and col. 17, lines 13-32). Kumar fails to teach "a control strategy means for controlling at least one pan-tilt-zoom camera among the two or more cameras to track the motion of the object based determined by the detection module" as claimed in Claim 18. Kumar teaches only object detection. Object detection is not analogous to controlling at least one pan-tilt-zoom camera among the two or more cameras to track the motion of the object, essentially as claimed - object detection does not teach controlling a camera. Therefore, Kumar fails to teach all the limitations of Claim 18.

Claims 2-7, 10, 11 and 13 depend from Claim 1. Claim 19 and 20 depend from Claim 18. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims. Claims 9, 20 and 21 have been cancelled.

At least Claim 11 is believed to be allowable for additional reasons.

Claim 11 claims, "providing a control strategy for controlling at least one camera of the plurality of cameras to view a portion of a scene estimated to include a visible portion of the object subsequent to an occlusion of the object."

Kumar teaches scene change detection (see col. 17, lines 13-32). Kumar does not teach tracking an object, much less controlling at least one camera of the plurality of cameras to view a portion of a scene estimated to include a visible portion of the object subsequent to an occlusion of the object as claimed in Claim 11. Kumar's system and method for scene change detection does not include facilities for controlling a camera to track an object, nor for estimating a scene to include the object subsequent to an occlusion thereof. Kumar mentions camera movement only to determine an initial 3D mosaic for use in synthetic view generation – that is, to generate views that the static cameras do not otherwise have. No camera of Kumar is controlled to view a portion of a scene estimated to include a visible portion of the object subsequent to an occlusion of the object. Therefore, Kumar fails to teach all the limitations of Claim 11.

The Examiner's reconsideration of the rejection is respectfully requested.

Claims 8 and 12 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Zhang (USPN 6,774,889). The Examiner stated essentially that the combined teachings of Kumar and Zhang teach or suggest all the limitations of Claims 8 and 12.

Claim 12 depends from Claim 1. Claim 12 is believed to be allowable for at least the reasons given for Claim 1. Claim 8 has been cancelled. The Examiner's reconsideration of the rejection is respectfully requested.

Claims 14-17 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of LeClerc (USPN 6,963,662 [sic]). The Examiner stated essentially that the combined teachings of Kumar and LeClerc teach or suggest all the limitations of Claims 14-17.

Claims 14-17 depend from Claim 1. Claims 14-17 are believed to be allowable for at least the reasons given for Claim 1. The Examiner's reconsideration of the rejection is respectfully requested.

Claim 19 has been amended to correct an informality.

Accordingly, Claims 1-8, 11-20 and 23 are believed to be allowable for at least the reasons stated. The Examiner's reconsideration of the objections and rejections is respectfully requested. For the forgoing reasons, the application is believed to be in condition for allowance. Early and favorable reconsideration is respectfully requested.

Respectfully submitted,

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